Title	Social Security arrangements in Singapore: An Assessment
Author(s)	Asher, Mukul G.; Karunarathne, Wasana
Citation	
Issue Date	2001-03
Type	Technical Report
Text Version	publisher
URL	http://hdl.handle.net/10086/14503
Right	

International Seminar on Pensions

5-7 March, 2001, Sano-shoin Hall, Hitotsubashi University, Tokyo, Japan

Organised by
Project on Intergenerational Equity
Institute of Economic Research, Hitotsubashi University

Social Security arrangements in Singapore: An Assessment

By

Mukul G. Asher
Professor, Public Policy Programme
Shaw Foundation Building (AS7)
National University of Singapore
5 Arts Link, Singapore 117570
E-mail: mppasher@nus.edu.sg
Fax (65) 778-1020

And

Wasana Karunarathne
Research Scholar, Department of Economics
National University of Singapore (AS2)
10, Kent Ridge Crescent
Singapore 119260.

Note: All dollars, unless otherwise noted, are in Singapore dollars. In early March 2001, US$ 1 = S$ 1.74

1. Introduction

Singapore is an affluent, highly internationalized, and rapidly ageing Southeast Asian city-state. In 1999, its total population was 3.89 million, but its resident population (which excludes the foreigners) was 3.22 million. (Republic of Singapore, Department of Statistics, 2000, Table 3.1, P.22). Singapore is thus not only dependent on the international economy for trade (its total merchandise trade to GDP ratio is about 3) and investments (around four-fifths of manufacturing investment commitments have consistently been from abroad), but also for manpower. In 2000, Singapore's labor force was 2.19 million of which nearly a quarter were foreigners (Republic of Singapore, Ministry of Trade and Industry, 2000). The growth rate of resident population has varied between 1.7 percent and 2.0 percent during the 1989-1999 period (Republic of Singapore, Department of Statistics, 2000, Table 1.8 p.9). Its per capita GDP in 2000 was $ 42,202 (US$ 24,260) (Republic of Singapore, Ministry of Trade and Industry, 2001, p.1).

Life expectancy at birth in Singapore in 1999 was 75.6 years for males and 79.6 years for females. (Singapore, Department of Statistics, 2000, Table 1.11, p.10). According to the life tables estimated by K.C. Tan of the Nanyang Technological University of Singapore, based on the 1990 census, average life expectancy for males at age 55 is 76.2 years and for females 80.0 years. It is well established that the "old-old" i.e. those above 75 years of age are more susceptible to the need for long-term care which is quite labor incentive and which significantly impacts on health care costs. The retirement age has recently been selectively increased to 62 years, and is set to increase further to 67 years in the next several years. Even then, an individual will require financing for a considerable number of years during old age.

The Total Fertility Rate (TFR) which measures the average number of children that would be borne per female, if all females lived to the end of their childbearing years, has been below the replacement rate of 2.1 children per woman for over quarter of a century, steadily declining from 2.073 in 1975 to 1.475 in 1999 (Singapore, Department of Statistics, 2000, Table 3.2, P.23). As a result, the median age of Singapore's population is expected to increase from 33.4 years in 1999 to 41.2 years in 2030; and the proportion of the population over 65 years of age is projected to increase from 7.03 percent in 1999 to 18.9 percent in 2030 (Republic of Singapore, 1999, Table1.1p.29).

It is in the above context that this paper provides an assessment of social security arrangements in Singapore. The main elements of Singapore's social security system are the following. First, there is near exclusive reliance on mandatory, publicly managed, Defined Contribution (DC) system based on portable individual accounts. The main vehicle for this system is the Central Provident Fund (CPF) to which only Singapore citizens and permanent residents can be members. The next four sections discuss the main features of the CPF scheme; investment policies and performance during the accumulation phase; arrangements during the ducumulation phase; and adequacy of the CPF for retirement respectively.

The second element, the Supplementary Retirement Scheme (SRS), essentially a tax advantaged voluntary savings scheme, is to be implemented from April 2001, is discussed in Section 6. The third element concerns the pensions arrangements for civil servants. Singapore has succeeded in restricting access to non-contributory, Defined Benefit (DB) pensions financed from current budgetary revenue to a vary small number of high- level civil servants and politicians. These arrangements are discussed in section seven. The final section provides remarks on the future of social security in Singapore.

The brief enumeration of the main elements of the social security system in Singapore thus suggests that it has so far not attempted to develop a multi-tier social security system recommended by the World Bank (1994) and others, and as commonly practiced in other high-income and ageing countries. In particular, there is a striking absence of tax-financed redistributive tier design to protect the lifetime poor, and address inflation and longevity risks.[1] The policymakers are tentatively exploring the use of the CPF scheme to de-link members' balances from the contributions. This is done by essentially distributing small amounts periodically from the budgetary revenue into members' CPF accounts regardless of their balances. But the frequency of the distributions as well as the amounts is insufficient to make a significant difference, or to classify them as a redistributive tier.

2. The Main Features Of The CPF Scheme

The CPF is a national provident fund (NPF) established in 1955, before Singapore attained independence. It is a statutory authority under the Ministry of Manpower. The twelve-member CPF Board, appointed by the Minister, has representation from the government, employees, employers, and the professionals. The key challenge has been to get competent and independent representation on the Board in an environment of mono-centric power structure which characterizes Singapore.

The CPF is essentially an administrative entity, with little autonomy in policy or in investment of the accumulated balances. It also has little research expertise. However, its size and scope puts at its disposal vast amount of socio-economic data. It has invested heavily in information technology to access this data for administration and for social engineering purposes. However, in Singapore, information is regarded as a strategic resource to be used by the policymakers for tactical advantages, rather than as a public good. Therefore, very little of the available data is routinely provided to the general public. It should be emphasized that the strategic use of information by the authorities also makes the task of analysis much more difficult.

Since 1955, but particularly since 1968, the Singapore government has vastly expanded the scope of the CPF to achieve a wide variety of economic, social, and other objectives (Table 1). These include homeownership, pre-retirement investments, compulsory medical savings account, insurance, and loans for financing tertiary education.

The homeownership goal over the years has become a dominant and unique feature of the CPF (Asher and Phang,1997). Members are permitted to pay down payment on public housing constructed by the government's Housing and Development Board (HDB) from their CPF balances. They may obtain mortgage on the remaining amount from the HDB at a rate which is 0.1 percentage point higher than what the CPF pays its members. The HDB obtains two types of loans from the government budget, one for contribution of public housing, and the other for mortgage financing.

Unless otherwise indicated, the discussion in the remaining part of this section draws on the data provided in Table 2 for the 1983-99 period.

Coverage: Between 1983 and 1999, the membership in the CPF increased from 1.8 million to 2.8 million, at an average annual compound growth rate (AACGR) of 2.94 percent; while the contributions has increased at AACGR of 1.82 percent, from 0.92

million to 1.2 million. Any individual, who contributes to the CPF even once, becomes a member. The contributors in a given year refer to those who have contributed at least once during a given year. The ratio of contributors to members has declined from 51.6 percent in 1983 to 43.3 percent in 1999. Contributors to labor force ratio has also declined from 70.9 percent in 1983 to 62.0 percent in 1999. This is not a course for concern as the foreign workers account for nearly a quarter of the work force, and the rest are self-employed. Self-employed can voluntarily contribute to the CPF up to the combined employer and employee contributions. They however must contribute to the Medisave component as discussed below.

Contribution Rate: At the time of its introduction in 1955, the CPF contribution rates were 5.0 percent for employer and 5.0 percent for the employee, for a total of 10.0 percent[2], with maximum monthly contribution of $50[3] (Asher, 1999, Table 2, p.3689). The rate remained unchanged till September 1968, when the CPF was permitted to be used to purchase public housing. The rate was increased in a series of steps to reach 50 percent (25 percent each by the employer and the employee), in July 1987 with a maximum monthly contribution of $2,500. The rate was reduced to 35 percent in April 1986 to cope with the 1985 recession; but was gradually increased to 40 percent in July 1992, with a maximum monthly contribution of $2,400. The rate was once again reduced to 30 percent in January 1999 to cope with the 1997 economic crisis, with a monthly maximization of $1,800.

The CPF contribution rate since January 2001 has been 36 percent (20 percent by the employee and 16 percent from the employer), with a maximum monthly contribution of $2,160.

Since July 1988, there have been lower rates of contributions for those above 55 years of age. This is designed to partly de-link wages from seniority, and to reduce the cost of hiring the elderly workers. Since January 2001, the contribution rates for those between 55 and 60 years of age have been 18.5 percent (12.5 percent by the employee and 6.0 percent from the employer, with a maximum monthly contribution of $1,110). For those between 60 and 65 years, the rate is 11.0 percent (7.5 percent for the employee and 3.5 percent for the employer), with maximum monthly contribution of $660. The rate is 8.5 percent for those above 65 (5 percent for the employee and 3.5 percent for the employer), with a maximum monthly contribution of $510.

The CPF contributions are channeled into three separate accounts:

Ordinary Account: For those below 55 years, between 72.2% and 61.1% of the contributions is channeled into this account depending on age, with the proportion decreasing with age. Balances in this account can be used for housing, pre-retirement investments and other purposes.

Special Account: For those less than 55 years, between 11.1% and 16.7% of the contributions are channeled in to this account, with the proportion increasing with age. However, none of the contributions are channeled in to this account for those aged over 55 years. Although, balances in this account are for retirement purposes, recent reforms have permitted them to be used for certain safe investments.

Medisave Account: This account can be used to pay for hospital and selected outpatient services; and for catastrophic health care insurance premium under the Medishield (and Medishield plus) Scheme. Unlike for the other two accounts, the self-employed must contribute to this account. The contributions are channeled into Medisave with the proportion increasing with age. For those below 55 years, between 16.7 percent and 22.2 percent are channeled into this account but for those above 55 years the proportions vary from 43.2 percent to 100.0 percent. The amount in this Account cannot be withdrawn until death, when it goes to the nominee(s) of the member.

The health insurance schemes (Medishield and Medishield Plus) have inadequate coverage (more than a third of the population is not covered), narrow scope (many illnesses, including pre-existing illnesses are not covered), and pay only a small proportion of the total hospital bill (typically between 25% and 40%). Rapid accumulation of Medishield balances suggests that the premiums are levied on the basis of over-conservative assumptions in relation to the benefits actually paid. Thus in 1999, the insurance premiums under the Medishield were $95 million while the payments were only $47 million. For the October-December 2000 period, average payment per claim under the Basic Medishield was $635, and under the Medishield Plus was $1283. These payments are quite low for catastrophic illnesses requiring hospitalization. Nevertheless, Singapore has integrated health care finance with the retirement finance.

While the gross contribution to the CPF have been impressive, existence of a large number of pre-retirement withdrawals, particularly for housing, has meant that net contributions has been rather low. Thus, during the 1987-99 period, about 70 percent of contributions were withdrawn during the year. Such high level of withdrawals for non-retirement purposes, particularly for housing, has adversely affected accumulation of balances as discussed in section 3 and 5. This also helps to explain as to why in spite of high contribution rates and rapid economic growth, the retirement balances are inadequate.

Tax Treatment of Pension Funds: In Singapore, CPF contributions are exempted from the income tax. For the year of assessment 1998, CPF deductions by the individual tax payers alone amounted to $ 3,979.2 million or percent of 2.89 percent of GDP. The value of the deduction to the CPF contributor depends on the marginal income tax rate applicable. Those outside the individual income tax net, about 65 percent of the labor force in 1998, of course, do not get any benefits from tax deductibility of CPF. For others, the value of the benefit from tax deductibility rises with the marginal income tax rate. The tax deductibility feature therefore reduces the degree of progressivity of the income tax.

In Singapore, accumulated income (for instance interest income and dividends from approved investments), capital gains from pre-retirement withdrawals, including from stocks (except certain types of property transactions), and retirement withdrawals are all not subject to income tax. This is a more liberal tax treatment than in other high-income countries where at least one of the three flows is taxable (Whitehouse, 1999). There is however, rather large and recurrent implicit tax on CPF balances as discussed in section 3.

However, gratuities, annuities, and pensions not related to the CPF or not applicable to the public sector officers are taxed in Singapore (Lim and Ooi, 1998). For annuities, premium paid to insurance companies are taxable. This has created a disincentive for development of alternative pension planes, and for the annuities market (Lim and Ooi, 1998). Such treatment also makes formal wage employment more attractive, and thereby inhibits risk taking and entrepreneurial activities even though the declared policy of the government is to encourage such activities. Singapore however, provides an extensive set of tax incentives (mainly in the form of reduced company income tax raters) for approved fund managers. The 1998-99 budget for example, also provided for tax exemption on disposal related gains from unit trusts to the fund management companies.

3. Investment Policies And Performance Of The CPF: The Accumulation Phase

In any Defined Contribution (DC) scheme, investment policies and performance of provident and pension funds are a crucial determinant of the adequacy during retirement. This is because such contractual savings are for the long-term, and it is the efficiency of the savings-investment intermediation which can potentially positively affect the trend rate of economic growth. Ultimately, economic growth is of crucial importance because it determines the resources available to be divided between the retirees and the non-retirees.

There are three separate pools of investible funds under the Singapore's CPF system. The first and the largest pool is the accumulated balances of the members with the CPF Board. These amounted to $ 88.4 billion in 1999 (61.4 percent of GDP) (Table 2). Under the CPF Act, these must be in essence invested in floating rate bonds issued specifically to the CPF Board to meet the statutory requirements. They are therefore not traded, and have no quoted values.

Since 1986, the floating rate is a simple average of 12-month deposit (with a weight of 80 percent) and month-end savings rate (with a weight of 20 percent) of the four major local banks, subject to a minimum nominal rate of 2.5 percent as spelled out in the CPF Act[4]. The rate is revised quarterly. As a matter of administrative discretion, a small portion of the CPF balances in the Special Account for those less than 55 years of age (currently 11.1 and 16.7 percent of the contributions go into this Account depending on age) receive interest rate 1.5 percent above the normal rate.

The real rate of return on CPF balances (nominal rate minus GDP deflator) averaged only 2.0 percent during the 1983-99 period; and only 0.88 percent per annum for the 1997-99 period, the period when the floating rate was introduced. During the 1983-99 period, there were five years when the real rate was negative (Table 2). The average return during the period has been boosted by negative inflation rates, i.e. deflation in three years during the period (Table 2). The above rates are quite low, and therefore they negate the potential advantage of mandatory saving in financing retirement.

The requirement that the CPF Board must invest only in government bonds has contributed substantially to the large internal debt of $125.8 billion (87.4 percent of GDP) in 1999 (Table2). The government however has been running persistently large budget surpluses over the years (Asher, 2001).

Given the large budget surpluses over considerable period, the CPF funds have not been needed to finance infrastructure or other government expenditure. The widespread belief that the CPF has financed infrastructure and actual construction of public housing (as opposed to facilitating housing mortgage for members from the demand side) is thus not supported by macroeconomic analysis.

How are the CPF funds then ultimately deployed? Essentially, the Singapore Government (through Singapore Government Corporation, SGIF, and other government-investment agencies) invests these funds. There is, however, no transparency or public accountability concerning where these funds are invested, and what has been the investment criteria and performance. The SGIF and other relevant government investment agencies are protected by statutory provisions from making any disclosure, even to the Parliament. The Elected President, who is mandated to protect Singapore's reserves, also has limited access to the operations of these investment agencies. It is believed that the accumulated CPF balances are predominantly invested abroad in a wide variety of physical, financial, and strategic assets.

To the extent, the government earns higher rate of return on the CPF funds than what it pays to the member, there is an implicit tax on the CPF wealth. This tax is likely to be fairly large and regressive as low- income members are likely to have most of their non- housing wealth in the form of the CPF balances. This vividly illustrates how political risks and non-transparency can arise in an individual account system.

The de-linking of interest paid to members on their balances from the ultimate deployment of funds, and essentially administered nature of the interest paid on CPF balances, and 100 percent investment of balances in government securities shown on the CPF balance sheet but not in actuality, have turned the CPF into an ersatz National Provident Fund (NPF). The CPF now contains elements of Notional Defined Contribution (NDC) system due to administered interest rates (though quarterly adjustment of its interest rate is much shorter than typical of the NDC systems such as in Italy), and of the PAYG system as government bonds will have to be serviced by the future generations of the taxpayers.

The second pool of investible funds consists of insurance funds. These amounted to only $2.9 billion as at end 1999 (CPF Annual Report, 1999). These are invested in fixed deposits, negotiable certificates of deposit, equities, and bonds. Out-sourcing of these funds for investment is believed to be much greater. The real rate of return on insurance funds was 3.41 percent per annum for the 1985-99 period, and 2.85 percent for the 1987-99 period (Table 2). While this is higher than the rate (8.09 percent per annum during the 1983-99 period) for the CPF balances, it is still substantially lower than the real GDP growth rate or the growth of average earnings (nominal earnings grew at a rate of 7.04 percent per year during the 1983-99 period). To the extent, return on CPF balances is less than wage (or GDP) increase; replacement rate will be adversely affected.

The third pool funds for investment consist of pre-retirement withdrawals by members under the CPF Investment Scheme (CPFIS). A member may open a CPF investment account with approved agent banks, all of who are locally controlled banks and all investments must be in Singapore dollars. Their charges and fees are not regulated. Individual CPF members may invest their Ordinary Account balance as well as the Special Account balance in approved assets. Only safer investments are permitted from the Special Account and from the Ordinary Account up to 35 percent can be invested in shares and corporate bonds by the members directly. There is no limit on investments in shares through the approved unit trusts.

Till September 30 2001, 100.0 percent of the profits realized (less accrued interest which would have been payable by the CPF Board on all the amounts withdrawn under this scheme) may be withdrawn by the individuals. This proportion will reduce to 50 percent for the period October 1, 2001 and to September 30, 2002 and will be zero thereafter.

As at December 31, 2000, Under the CPFIS scheme, $18,741 million (US$ 10,771million) was withdrawn by 516,386 members (17.8 percent of total members) and its total investments was amounted to $18,741 (US$ 10,771). The average investment per member thus was $36,293 (US$20,858). The allocation under the scheme can be categorized as stocks and loan stocks: $ 9,674 million (51.6peercent); insurance policies: $7,626 million (40.7 percent); Unit trusts; 1,140 million (6.1percent); and as others: $301 million (1.6percent).

Transaction costs of unit trusts are high with 5 to 7 percent spread between the offer and bid (buy and sell) prices. Although there is an effort made to address this issue, low average investment and small size of the unit trusts market are considered as

constraints in addressing it. Therefore, investment performance under this scheme appears to be unsatisfactory. But more detailed data are needed from the CPF Board for a detailed and more robust research result.

4. The Decumulation Phase Of The CPF

The decumulation phase is important because during retirement, it is essential to provide protection against the inflation, longevity risks, and to ensure benefits to the survivors.

Since women have a lower exposure to labor force than men, and they earn on average less than men, but have longer life expectancy, protection against the above risk is particularly important for them.

At the time of retirement, the following options exist in a DC scheme to convert accumulated balances into a flow of income during retirement. These include lump sum, and periodic withdrawals and annuities, or a combination of the three. It should be recognized that the annuities are like any other financial product, so cost of purchasing annuity and therefore rate of return from annuity purchase varies with the market structure and the features (individual vs. joint annuity, inflation indexing etc.) of the annuity product. The CPF permits its members to withdraw all accumulated balances over and above the required minimum sum at age 55. Although the significant proportion of the CPF members' have accumulated balances which fall below the minimum sum, if a member's balances are below the required minimum sum, it does not have to make it up from other sources. Children are however allowed to top-up parents CPF accounts.

As of July of 2001,the required minimum sum is $ 70,000 of which $30,000 must be in cash and $40,000 can be pledged in property. The minimum sum will become $ 80,000 in July 2003 with the amount equally divided between cash and property. Currently, there are no further plans to increase the minimum sum.

The CPF Board permits three options for the cash component of the minimum sum: buy a life annuity from an approved insurance company, keep it with an approved bank, or leave it with the CPF Board. In 1999, less than 10 percent of the 26000 individuals who were covered under the Minimum Sum Scheme purchased annuities. Thus, the annuities option is not popular. Under all three options, the first payment is not available until age 62, seven years after the withdrawal age.

The above arrangements effectively increase the politically sensitive withdrawal age for this component. However, the main weaknesses of the mandatory savings scheme centering on inadequate balances for many individuals, and the need for protection against inflation and longevity, and the provision of survivors' benefits are not addressed by the minimum sum scheme.

5. Will The CPF Be Adequate For Retirement?

The CPF Board estimated in 1987 (no updates since then) that the replacement rate will very between 20 and 40 percent for the members, without protection for inflation and a very limited protection against the longevity. Table 3 shows that the average balance per CPF member doubled between 1987-99, while the average monthly earnings in 1999 were 2.4 times the earnings in 1987. Thus, monthly earnings have risen faster than average balances per member. This implies low replacement rate.

There are several reasons why the average balance in the CPF is low. First, the wage structure in Singapore is highly unequal, and this is reflected in the contributions made by the CPF members. Thus, in 1999, 51.4 percent of the contributors had monthly wage less than $2,000,while only 6.3 percent had wages higher than $ 6,000. Second, high rate of pre-retirement withdrawals tied to the centrality of real estate sector in the economy reduces the amount available for retirement. Third, average balances are low as the real rate of return is low due to implicit tax on CPF wealth. Finally, high transaction costs due to restricted competition and limited size of the unit trusts market have also contributed to low balances.

6. The Supplementary Retirement Scheme (SRS)[5]

The SRS is a tax-advantaged voluntary scheme and it will become effective from April 2001. The SRS permits Singapore citizens and permanent residents to save in special individual account 15 percent of their total labor compensation, subject to a ceiling. Expatriate employees are permitted to contribute at a rate of 35 percent in recognition of the fact that they are not a part of CPF scheme. The employers are not permitted to contribute to the SRS, but self-employed may join.

The contributions and investment income (except dividend income) can be accumulated in a tax-advantaged manner until statutory withdrawal age at the time of first contribution. At the time of statutory withdrawals 50 percent of the amount is taxed at then prevailing marginal income tax rate. The tax benefit thus varies positively with the marginal income tax rate. As only about a third of the labor force currently is liable for individual income tax, the SRS scheme is of relevance only to the top third of the labor force. Pre-mature withdrawals not only attract full tax, but also a 5 percent penalty. Foreigners must maintain SRS account for at least 10 years even if they leave Singapore earlier.

The contributions to the SRS may be invested in a wide variety of assets. However, property and real estate investments and certain types of insurance products are not permitted. The withdrawal form the SRS however must be made in cash. The withdrawals however may be staggered over a period to minimize tax and avoid adverse market conditions.

Four locally owned and controlled banks are been designated as SRS providers. They are free to set their own charges for the services provided, and to determine interest to be paid on the SRS savings. This limits the competition and could substantially reduce the benefits from the scheme.

In addition to the small proportion of the labor force that is likely to find SRS of relevance, there are also other reasons for its limited impact. First, the high target for the mandatory CPF contribution rate at 40 percent limits the ability of the potential participants to the SRS scheme. Secondly, the source based income taxation in Singapore under which income earned abroad but not remitted to Singapore is not subject to income tax, also limits the benefits to be derived from the SRS, particularly for the foreigners. Third, the transaction costs of the scheme are likely to be high given limited competition, absence of regulation on fees and charges, and small size of the unit-trust industry. In addition, taxation of the withdrawal stage will also reduce returns. Fourth, the income tax payable at the time of withdrawal is on both original investment and on capital gains. Since Singapore has no capital gains, under some circumstances, such as when a person joins the SRS at a young age and has a low marginal rate of tax, and when net returns on SRS investments are high, an individual may actually get a lower rate of after-tax return under the SRS as compared to not joining the tax benefit. Usually, it is the taxation of capital gains

which make the SRS type schemes tax advantaged. Fifth, the ten-year minimum period for which an expatriate must maintain balances in the SRS account could act as a hindrance for short-term expatriates.

The impact of the SRS on overall social security arrangements in Singapore will be marginal as it is not designed to address the fundamental limitations of the current social security arrangements such as lack of protection against inflation and longevity, and absence of tax financed redistributive tier.

7. Civil Service Pensions

Singapore has succeeded in shifting most of its civil servants to the CPF scheme, and there by reduce the number of those eligible to receive pensions. This result has been achieved over a fairly long period. Thus, until 1973, all government employees were eligible to be on the pension scheme. However, in 1973 lower division government employees, and in 1987 employees at all levels were given a choice to shift to the CPF scheme. The response was mixed, with some employees electing to stay with the pension scheme, while some shifted to the CPF scheme. The main incentives for a shift to the CPF for the individual civil servants were the availability of public housing finance under the CPF scheme, and portability feature of the CPF. Lack of inflation protection in the pension scheme acted as a push factor.

At present, only officers in the designated pensionable services (Administrative service, Police (Senior) and intelligence service), and the political appointees are legally permitted to be on the pension scheme. Those on the pension scheme make reduced contributions to the CPF scheme. The pension benefits however do not require any contributions.

To ensure payment of pensions, the government set up a separate Pension Fund in 1995. Table 4 provides the available data on the operations of the pension fund on the basis of which the following may be noted. The initial contribution to the fund (S$ 11.7 billion) have been made from the accumulated budgetary surpluses; and since then annual contributions are made to the fund from the budgetary resources. In March 2000, the accumulated balances in the pension fund were $10.5 billion, equivalent to 7.3 of GDP, more than sufficient to meet future pension liabilities. Fiscal consolidation and fiscal flexibility are therefore not of concern in undertaking civil service pension reform in Singapore.

The investment policies and performance of the pension fund is not made publicly available. Thus, pension fund operations are non-transparent. Implicit nominal rate of return based on reported data (which may be incomplete) has varied between 2.9 percent and 4.3 percent during FY 95 to FY 99 period. This implies very low real rate of return. The expenditure on pensions is around 0.5 percent of GDP or about 5 percent of total operating expenditure.

8. The Future of Social Security in Singapore

The CPF scheme has come to occupy a pre-dominant position in the social security arrangements in Singapore. The recent parametric reforms of the CPF scheme, and the introduction of the SRS do not however address the main limitations of the current arrangements. These limitations include inadequate balances at retirement, lack of inflation and longevity protection, lack of survivors' benefits, and virtual absence of tax-financed redistributive tier. The limited nature of health insurance, and the issue of long-term care of the aged also will pose major challenges to the policymakers.

It is clear from the discussion in this paper that more fundamental reforms are needed to provide economic security to the elderly in Singapore Such reforms will require loosening of the government party's control over the economy, society, and public policy agenda over social security (Ramesh, with Asher, 2000). The policymakers recognize that their legitimacy and authority depends to an important extent on fulfilling the material needs of the population. While this provides hope for somewhat accelerated parametric reforms, such as slightly more frequent and higher amounts from the budgetary resources to the CPF accounts, and more liberal withdrawals under the CPFIS scheme, fundamental reforms which address the main weaknesses of the current arrangements will have to await substantive reforms in the political economy of Singapore.

TABLE 1
Various Schemes Under Singapore's CPF System

Type	Scheme	Year Introduced
Home ownership	Approved Housing Scheme	1968
	Approved Residential Property Scheme	1981
Investment	Singapore Bus Services (1978) Ltd Share Scheme	1978
	Approved Investment Scheme (AIS)	1986[a]
	CPF Investment Scheme (CPFIS)- replacing AIS	1997[b]
	Approved Non-Residential Properties Scheme (ANRPS)	1986
	Share-Ownership Top-Up Scheme (SOTUS)	1993
Insurance	Home Protection Insurance Scheme	1982
	Dependents' Protection insurance Scheme	1989
	Medishield Scheme	1990
Others	Company Welfarism through Employers' Contribution (COWEC) Scheme[c] (Discontinued 1.1.99)	1984
	Medisave Scheme	1984[d]
	Minimum Sum Scheme	1987
	Topping-up of the Minimum Sum Scheme	1987
	Financing of Tertiary Education in Singapore	1989
	CPF Top-up Scheme	1995

a From October, 1993, divided into the Basic and Enhanced investment schemes.

b From January 1, 1997, CPFIS replaced the Approved Investment Scheme, thus eliminating distinction between the Basic and Enhanced investment schemes. The scheme has been liberalized substantially since then in terms of types of investments permitted, and the proportion of balances with the CPF which can be used.

c From 1'st January 1999, there will be no more new contributions to the COWEC fund. The scheme is therefore effectively discontinued.

d From 1993, self-employed persons must contribute to the Medisave scheme.

Source: The CPF Annual Reports, various Years.

TABLE 3 Singapore: Average Balances Per Member* and Average Monthly Earnings, 1987-99

(1)	(2)	(3)	(4)	(5)= (4)/(2)	(6)=(4)/(3)
Year	Average Monthly Earnings (excluding Employer's CPF Contributions)[a] ($)	Average Monthly Earnings (including Employer's CPF Contribution)[b] ($)	Average Balance Per Member ($)	Average Balance Per Member/Average Monthly Earnings (excluding employer's contribution	Average Balance Per Member/Average Monthly Earnings (including employer's contribution)
1987	1,176	1,335	15,458	13.1	11.6
1988	1,273	1,426	15,790	12.4	11.1
1989	1,398	1,608	16,313	11.7	10.1
1990	1,528	1,773	18,504	12.1	10.4
1991	1,669	1,969	20,421	12.2	10.3
1992	1,804	2,129	22,191	12.3	10.4
1993	1,918	2,282	21,361	11.1	9.4
1994	2,086	2,503	23,059	11.1	9.2
1995	2,219	2,663	24,640	11.1	9.3
1996	2,347	2,816	29,503	12.6	10.5
1997	2,480	2,976	28,633	11.5	9.6
1998	2,740	3,014	30,419[c]	11.1	10.1
1999	2,813	3,151	31,257	11.1	9.9

Notes:

[a] : inclusive all remuneration received before deduction of the employee's CPF contributions and individual income tax. They include basic wage, overtime payments, commissions, allowances and other monetary payments, annual wage supplement, and variable bonus.

[b] : this is calculated as amount in column (2) + Employer's CPF contribution (Amount in column (2)). This is only an approximation and is biased upwards due to wage ceiling for employer's contribution.

[c] : For males, average balance in 1998 was $ 33,765, for females, $ 26,846.

Source: Average Monthly Earnings From Republic of Singapore, Ministry of Manpower, Singapore Year Book of Manpower Statistics, 1997, Table 2.2, p.18. And Year Book of Statistics, 2000.

* Note that anyone who contributed to CPF at one time or the other is a member. Hence , the number of members in any given year does not refer strictly to all those stationed in Singapore. Some who are not citizens and permanent residents may not come back to Singapore to spend their retirement. Those who are permanent residents may be working abroad and hence are not active contributors. In general, the "members" are a fluid pool and strict comparability of the annual data on members is not expecte.

Table 4

Singapore: Operations of the Pension Fund[a], FY 1995-98[b]

(millions of Singapore dollars)

Category	FY95	FY96	FY97	FY98	FY99 (Revised)
Pension Fund Balances (end period)	114,620.00	11,770.30	11,654.80	10681.8[f]	10,540.90
As % of GDP	9.5	9.0	8.2	7.7	7.3
Contributions from the Consolidated Revenue Account	11,699.60	567.1	172.9	141.9	523.1
Investment Income[c]	343.4	402.9	413.8	483.9	308.8
Implicit Nominal rate of Return[d]	2.9	3.5	3.5	4.3	2.9
Gratuities and Pensions[e]	542.4	613	647.8	730.6	763.0
As % of Operating expenditure	4.7	4.3	4.6	5.0	5.5
As % of GDP	0.45	0.47	0.45	0.53	0.53
Allowances, Subsidies and Compensation	41.6	48.8	53.9	58.4	65.4

Notes:

a. Pension fund was set up in 1995

b. Singapore's Financial Year (FY) is April-March. Thus FY 1995 refers to April 1, 1995 to March 31, 1996.

c.As the accounting for the pension Fund is on a cash basis, it may be assumed that only realized income is included in investment income. The implicit nominal rate of return thus is not appropriate measure of investment performance.

d. Calculated as investment income divided by average balances (beginning period plus end period balance ,divided by two).

e. It should be noted that since 1995, pensioner has an option to receive pension as a lump-sum, or a monthly payment, or a combination of the two. The details of each option chosen by the pensioners are not available.

f. In 1998, $ 806.6 million was transferred from the Pension Fund to the SAVER Fund.

Source: Calculated from the Republic of Singapore, The Budget, various years, and Republic of Singapore, Yearbook of Statistics , various years. Beginning with the budget for the FY 2001, balance sheets for various funds, including the pension

References

Asher, M.G., 2001. "Reforming Singapore's Tax System for the 21st Century" in Chng M. K., Hui W. T., Koh A. T., Lim K. L. and Bhanoji R. (eds) Singapore Economy in the 21st Century: Issues and Strategies, Singapore: McGraw-Hill Book Co.

Asher, M.G., 1999. "Pension Scheme in Singapore: Case Study and Implications" Economic and Political Weekly, 34, 52, pp.3687-94.

Asher, M.G. and S.Y. Phang, 1997. "Singapore's Central Provident Fund System: Implications for Saving, Public Housing and Social Protection" in A.E. Anderson, B. Harsman and J.M. Quigley (eds), Government for the Future Unification, Fragmentation and Regionalism, Elsevier, Science BV, Amsterdam.

Lim, J. and Ooi, B.J., 1998. "Improved Tax Breaks on Nest Eggs Would Assist the Elderly", The Straits Times (Singapore), February 22.

Palacios Robert and Miralles, Montserrat P., "International Pattern of Pension Provision", Washington D.C.: The World Bank, Social Protection Division, available on http://www.worldbank.org/sp

Ramesh, M. with Asher Mukul.G., 2000. "Welfare Capitalism in Southeast Asia". Basingstoke: MacMillan Press.

Republic of Singapore, 1999. Report of the Inter-Ministerial Committee on the Ageing Population, Singapore.

Republic of Singapore, Central Provident Fund (CPF), Annual Report, Various Years. Available on http://www.cpf.gov.sg/

Republic of Singapore, Ministry of Trade and Industry, 2001. Economic Survey of Singapore 2000, Singapore.

Republic of Singapore, Department of Statistics, 2000. . Yearbook of Statistics 2000, Singapore.

Whitehouse, E., 1999. "The Tax treatment of Funded Pensions", The World Bank, Social Protection Discussion Paper Series, no 9910, Washington DC.

The World Bank, 1994. "Averting the Old Age Crisis: Policies to Protect The Old and Promote Growth", New York: Oxford University Press.

---

1. Inflation risk concerns the risk that price increases will erode the purchasing power of the monthly pension income or benefits. Longevity risk arises because a retiree may live longer than expected (or has unexpectedly large need for health care expenditure) which may exhaust accumulated savings.
2. The 10 percent rate may be regarded as net of employers' CPF contribution. If this were included, the rate will be 9.5 percent (10/105).
3. The maximum monthly contribution applies to the ordinary wages for bonuses and other additional wages; the statutory rates apply without limit. So, CPF contribution may exceed the maximum specified.
4. As explicit permission of the Finance Minister is needed under the CPF Act to pay interest of more then 2.5 percent.
5. See http://www.mof.gov.sg/SRS.html for the details of the SRS scheme